Catalogue of American Amphibians and Reptiles.

Seidel, Michael E. 1988. *Trachemys decussata.*

Trachemys decussata (Gray)
North Antillean Slider

Emys decussata Gray, 1831:28. Type-locality, "America Boreali." Holotype, British Mus. Natur. Hist. 1947.3.4.79, catalogued as a male, but re-identified from photograph as an adult female (Seidel, 1988), collected (origin) by J. E. Gray (not examined by author).

Emys rugosa: Cocteau and Bibron, 1843:17.

Emys vermiculata Gray, 1844:25. Type-locality, "Tropical America?" Holotype formerly in British Mus. Natur. Hist., now lost (not examined by author).

Ptychemys decussata: Agassiz, 1857:434.

Trachemys rugosa: Agassiz, 1857:436.

Emys jamao: Duméril, 1861:435. Nomen nudum.

Clemmys decussata: Strauch, 1862:127.

Emys gnatho Vilaró, 1867:204. Type-locality, "Cuba." Holotype not designated (not examined by author).

Pseudemys decussata: Gray, 1870:47.

Chrysemys scripta rugosa: Boulenger, 1889:79.

Pseudemys palustris: Stejneger, 1904:710.

Chrysemys scripta palustris: Siebenrock, 1909:464.

Pseudemys rugosa: De Sola and Greenhall, 1932:129.

Pseudemys terrapen: Mertens and Wermuth, 1955:367.

Chrysemys decussata: McDowell, 1964:274.

Chrysemys terrapen: Obst, 1983:23.

Trachemys decussata: Seidel and Incháustegui, 1984:468. First use of combination.

• **Content.** Two subspecies are recognized: *decussata* and *angusta*. See Comment.

• **Definition**. A relatively large *Trachemys*, males reach 115-270 mm in carapace length and females 120-390 mm. The adult carapace is brown or olive, weakly keeled and sometimes with small ridges radiating from the areolae of pleural scutes. In juveniles and some young adults, the pleurals may have a dark spot encircled by a yellow or orange ring and a similarly ocellate figure on the dorsal and ventral marginal seams. The adult plastron is usually yellow and unmarked. The juvenile plastron has a continuous or interrupted wavy symmetrical figure, which may also occur on the bridge. Skin is grayish-brown or green with yellow stripes on the neck and limbs. These stripes are much less pronounced in adults. The juvenile supratemporal stripe in juveniles may be orange or pink. The tomium is smooth or slightly serrate, and the median ridge of the alveolar surface is weakly developed. The foreclaws of mature males are often elongate, melanism is pronounced in older individuals, and the snout is relatively short.

• **Diagnosis** *T. decussata* is distinguished from all other species of *Trachemys* by the following combination of characters: plastral surface of adults either flat or slightly concave; epiplastron truncate anteriorly; inguinal scutes posteriorly aligned (often barely or not in contact with marginal VI and projected laterally to form an angle; gular scute short, ususally less than 13% of carapace length; cranium shallow (less than 32% of its length) with the maxilla flared laterally and the squamosal tapered posterodorsally.

• **Descriptions**. General descriptions are in Barbour and Carr (1940), Pritchard (1979), Sampedro Marin et al. (1983), Garrido and Juame (1984), and Seidel (1988).

• **Illustrations**. Color photographs or drawings are in Barbour and Carr (1940) and Pritchard (1979). Black and white photographs or drawings are in Grant (1940, 1948), Wermuth and Mertens (1961), and Seidel (1988). Illustrations of the skull are in Seidel (1988).

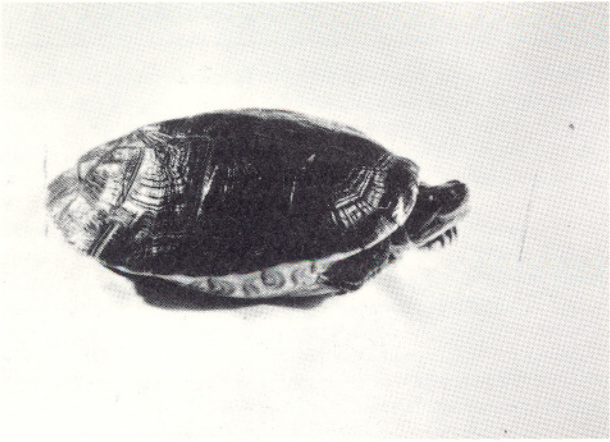
• **Distribution**. *T. decussata* occurs on mainland Cuba as well as Isla de Pinos (Isla de la Juventud), Cayo Coco, Cayo Santa Maria (Garrido and Juame, 1984) and the Cayman Islands (Seidel, 1988).

• **Pertinent Literature**. General accounts are in Barbour and Carr (1940, Grant (1940), and Pritchard (1979). Additional references are listed by topic. Taxonomy: DeSola and Greenhall (1932), Grant (1948), Williams (1956), McDowell (1964), Seidel and Smith (1986), Seidel and Adkins (1987), and Seidel (1988). Electrophoresis: Seidel and Adkins (1987). Distribution: Schwartz and Henderson (1985), Iverson (1986), and Seidel (1988). Zoogeography and evolution: Barbour and Carr (1941), Williams (1964), and Seidel (1988). Choanal structure: Parsons (1968). Blood cells: Frair (1977). Righting reflex: Ashe et al. (1975). Salinity tolerance (Dunson and Seidel, 1986). Ecology: Grant (1940) and Sampedro Marin et al. (1983).

• **Comment**. Many authors, following Barbour and Carr (1940), have recognized three subspecies of *T. decussata*. However, Seidel (1988) presented evidence that *T. d. plana* (from eastern Cuba) is not a distinct taxon and placed it in the synonymy of *T. d. decussata*. He also found that *Trachemys* on the Cayman Islands, previously assigned to *T. d. granti*, cannot be distinguished from *T. d. angusta*, and placed the former in synonymy.



Map. Solid circle marks the type-locality; hollow circles other reported localities.



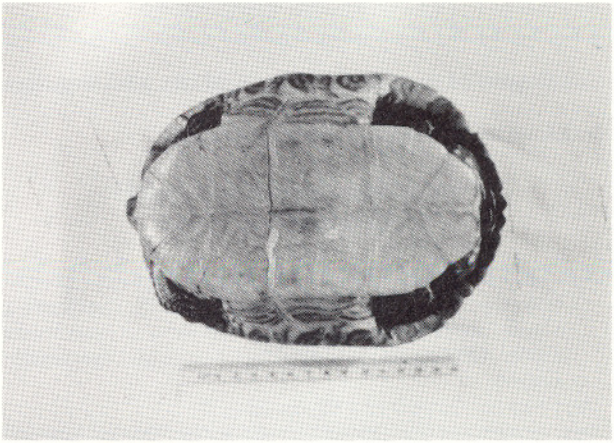


Figure 1. Dorsoateral view (left) and pastral view of a young female *Trachemys decussata angusta* from Grand Cayman Island.

Mittleman (1947) challenged Barbour and Carr's (1940) assignment of *Testudo rugosa* Shaw to the Jamaican species (*T. terrapen*) claiming that the specimen described by Shaw more closely resembled the Cuban form (*T. decussata*). Based exclusively on Shaw's (1802) and Barbour and Carr's (1940) published data, he placed *decussata* in the synonymy of *rugosa*. However, Mittleman (1947) was apparently unaware that Daudin (1801) had previously used the combination *Testudo rugosa* for the green turtle, *Chelonia mydas*; this renders *Testudo rugosa* Shaw invalid (a junior homonym).

• **Etymolgy**. The specific name *decussata* (Latin, *decus* "beauty or splendor") probably refers to the markings of young individuals; the subspecific name *angusta* (Latin, *angustus* "narrow") refers to the carapace which is typically less broad than in the nominate subspecies.

1. *Trachemys decussata decussata* (Gray)

Emys decussata Gray, 1831:28. See species account.
Pseudemys decussata decussata: Barbour and Carr, 1940:396.
Pseudemys decussata plana Barbour and Carr, 1940:405. Type-locality, "Rio Jobabo, Western Oriente, Cuba." Holotype, Mus. Comp. Zool., Harvard 34134, adult male, collected by T. Barbour, August, 1932 (examined by author).
Pseudemys rugosa rugosa: Mittleman, 1947:176. (see Comment).
Pseudemys rugosa decussata: Mittleman, 1947:176.
Pseudemys terrapen decussata: Mertens and Wermuth, 1955:366.
Pseudemys terrapen plana: Parsons, 1960:118.
Pseudemys terrapen rugosa: Wermuth and Mertens, 1961:158.
Chrysemys decussata decussata: Schwartz and Thomas, 1975:47.
Chrysemys terrapen decussata: Obst, 1983:23.
Chrysemys terrapen plana: Obst. 1983:23.
Trachemys decussata decussata: Iverson, 1985:4. First use of combination.
Trachemys decussata plana: Iverson, 1985:4.

• **Definition**. The carapace is relatively shallow (depth 34% of carapace length in males, 37% in females) and broad anteriorly (width at marginal seam III-IV greater than 60% of carapace length). The upper jaw is not elongate (62% of head width in males, 60% in females) and markings on the neck and limbs fade or disappear in adults.

2. *Trachemys decussata angusta* (Barbour and Carr).

Pseudemys decussata angusta Barbour and Carr, 1940:402. Type-locality, "Taco River, Pinar del Rio, Cuba." Holotype, Mus. Comp. Zool., Harvard 34340, adult female, collected by G. S. Villalba and F. E. Convillon, December, 1932 (examined by author).
Pseudemys decussata decussata: Barbour and Carr, 1940:402. In part, specimens from Isla de Pinos.
Pseudemys granti Barbour and Carr, 1941:59. Type-locality, "...Grand Cayman..." Holotype, Mus. Comp. Zool, Harvard 46045, adult female collected by Rodriguez Benitez, 1941, (examined by author).
Pseudemys rugosa angusta: Mittleman, 1947:176. (see comment).
Pseudemys terrapen granti: Mertens and Wermuth, 1955:367.
Pseudemys decussata granti: Williams, 1956:157.
Pseudemys terrapen angusta: Parsons, 1960:118.
Chrysemys terrapen granti: Williams, 1969:369.
Chrysemys decussata granti: Schwartz and Thomas, 1975:47.
Chrysemys terrapen angusta: Obst, 1983:23.
Trachemys decussata angusta: Iverson, 1985:4. First use of combination.
Trachemys decussata granti: Iverson, 1985:4.

• **Definition**. The carapace is relatively deep (37% of carapace length in males, 39% in females) and narrow anteriorly (width at marginal seam III-IV 56-58% of carapace length). The upper jaw is slightly elongate (65% of head width in males, 63% in females) and markings on the neck and limbs are often prominent in adults.

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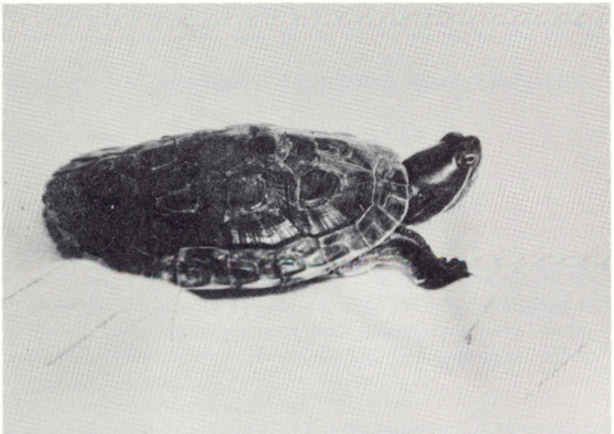
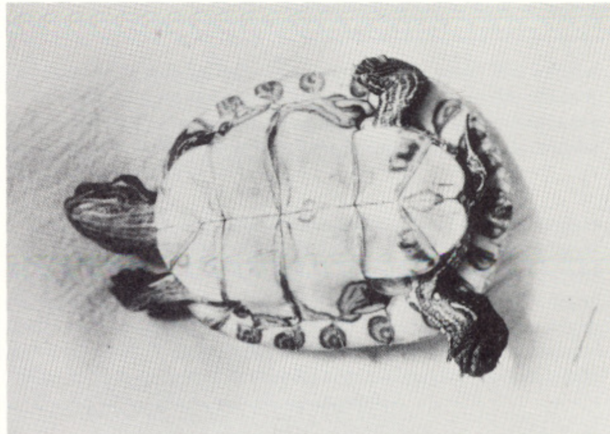



Figure 2. Dorsolateral (left) and ventral view of a juvenile *Trachemys decussta angusta* from Grand Cayman Island.

of estuarine and insular emydid turtles (*Pseudemys nelsoni* and *Trachemys decussata*). J. Herpetol. 20(2):237-245.

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